Amendments to the Drawings:

The attached drawing sheet includes changes to Figure 2. In Figure 2, text labels were missing. Appropriate correction has been made and replacement sheets of drawings are filed with this amendment. These amendments are supported by the specification (e.g., see paragraphs 20 and 21).

REMARKS/ARGUMENTS

In the Office Action mailed May 28, 2009, claims 1-20 were rejected. In response, Applicant hereby requests reconsideration of the application in view of the amendments and the below-provided remarks. Claims 1 and 16 have been amended. Claim 2 has been canceled and no new claim has been added.

Claim Rejections under 35 U.S.C. 102 and 103

Claims 1-2, 8-12, 15-17, and 19-20 were rejected under 35 U.S.C. 102(e) as being anticipated by Kommerling et al. (U.S. Pat. No. 7,005,733, hereinafter Kommerling). Additionally, claims 1-7 and 14 were rejected under 35 U.S.C. 103(a) as being obvious over Sano (JP 3084959 A) in view of Kommerling. Additionally, claim 13 was rejected under 35 U.S.C. 103(a) as being obvious over Kommerling in view of Fujiki et al. (JP 7209019 A, hereinafter Fujiki). Additionally, claims 17-18 were rejected under 35 U.S.C. 103(a) as being obvious over Kommerling in view of Double et al. (U.S. Pat. No. 5,129,629, hereinafter Double). However, Applicant respectfully submits that these claims are patentable over Kommerling, Sano, Fujiki, and Double for the reasons provided below.

Claim 1

Claim 1 has been amended to incorporate the limitations of claim 2. Claim 2 has been canceled. As amended, claim 1 recites:

> "An integrated circuit arrangement comprising:
>   an integrated circuit device having a plurality of magnetically-responsive circuit nodes;
>   a package adapted to inhibit access to the integrated circuit device and including a plurality of magnetized particles therein, the magnetically-responsive circuit nodes magnetically responding to the plurality of magnetized particles such that a change in magnetic field collectively provided by the magnetized particles renders a change in a magnetic state of at least one of the magnetically-responsive circuit nodes; and
>   a detection circuit adapted to detect the magnetic state of the magnetically-responsive circuit nodes and, <u>in response to a change in the magnetic state, to detect that the package has been tampered with</u>" (emphasis added).

In contrast, Kommerling does not disclose a "circuit adapted to detect the magnetic state of the magnetically-responsive circuit nodes and, in response to a change in the magnetic state, detecting that a package has been tampered with," as recited in amended claim 1. Kommerling merely discloses that in the event of tampering with the encapsulation, the cryptographic input key is altered (Kommerling, col. 6, lines 17-20). However, the circuit as disclosed by Kommerling does not itself detect tampering, because the circuit of Kommerling will always produce an encryption key, independently of whether or not the encapsulation has been tampered with, and will still attempt to decrypt programs using the encryption key (Kommerling, col. 6, lines 17-23). Therefore, Kommerling does not disclose detecting that a package has been tampered with, because Kommerling is merely directed to an encryption/decryption circuit where the encryption key is based on encapsulation properties.

For the reasons presented above, Kommerling does not disclose all of the limitations of the claim because Kommerling does not disclose detecting that a package has been tampered with, as recited in the claim. Accordingly, Applicant respectfully asserts that amended claim 1 is not anticipated by Kommerling because Kommerling does not disclose all of the limitations of the claim.

Kommerling, in general, is directed to an apparatus and methods for protection of security sensitive content in an integrated circuit assembly (Kommerling, col. 1, lines 16-19). Sano is directed to a mode setting apparatus for an integrated circuit (Sano, title). However, Sano is not directed to a protection mechanism to detect tampering of a package. In fact, Sano merely teaches that a mode changeover circuit instructs a mode changeover by a magnetic field detection (Sano, abstract). Sano does not teach or suggest detection of tampering of a package, and Sano also fails to teach or suggest any protection mechanism to protect data in general. Thus, it would not have been obvious to combine the circuit, as disclosed by Sano, with the circuit of Kommerling.

Furthermore, Sano does not teach or suggest detecting that a package has been tampered with, as recited in amended claim 1. In fact, Sano merely teaches detecting that a magnet has been placed over a Hall element, but Sano fails to teach or suggest that a circuit detects tampering. Therefore, the combination of Sano and Kommerling does not teach or suggest a "circuit adapted to detect the magnetic state of the magnetically-

responsive circuit nodes and, in response to a change in the magnetic state, detecting that a package has been tampered with," as recited in amended claim 1.

For the reasons presented above, Sano and Kommerling do not disclose all of the limitations of the claim because Sano and Kommerling do not disclose detecting that a package has been tampered with, as recited in the claim. Accordingly, Applicant respectfully asserts that amended claim 1 is patentable over Sano and Kommerling, alone or in combination, because Sano and Kommerling do not disclose all of the limitations of the claim.

Independent Claim 15

Applicant respectfully asserts that independent claim 15 is not anticipated by Kommerling at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 15 recites "a tamper-protection circuit adapted to detect the logic state of the at least some of the plurality of magnetically-responsive memory elements and, in response to the detected logic state changing, detecting that the package has been tampered with" (emphasis added).

Here, although the language of claim 15 differs from the language of claim 1 and the scope of claim 15 should be interpreted independently of claim 1, Applicant respectfully asserts that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 15. Accordingly, Applicant respectfully asserts claim 15 is not anticipated by Kommerlig because Kommerling does not disclose detecting that the package has been tampered with.

Independent Claim 16

Applicant respectfully asserts independent claim 16 is not anticipated by Kommerling at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 16 recites "a tamper-protection circuit adapted to detect the magnetic response of the at least one magnetically-responsive element and, in response to the detected magnetic response changing, detecting that the package has been tampered with" (emphasis added).

Here, although the language of claim 16 differs from the language of claim 1 and the scope of claim 16 should be interpreted independently of claim 1, Applicant respectfully asserts that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 16. Accordingly, Applicant respectfully asserts claim 16 is not anticipated by Kommerling because Kommerling does not disclose detecting that the package has been tampered with.

Independent Claim 19

Applicant respectfully asserts independent claim 19 is not anticipated by Kommerling at least for similar reasons to those stated above in regard to the rejection of independent claim 1. In particular, claim 19 recites "in response to detecting a change in the magnetic state of the plurality of magnetically-responsive circuit nodes, detecting that the integrated circuit device has been tampered with" (emphasis added).

Here, although the language of claim 19 differs from the language of claim 1 and the scope of claim 19 should be interpreted independently of claim 1, Applicant respectfully asserts that the remarks provided above in regard to the rejection of claim 1 also apply to the rejection of claim 19. Accordingly, Applicant respectfully asserts claim 19 is not anticipated by Kommerling because Kommerling does not disclose detecting that the integrated circuit device has been tampered with.

Dependent Claims 3-14, 17-18, and 20

Claims 3-14, 17-18, and 20 depend from and incorporate all of the limitations of the corresponding independent claims 1, 16, and 19. Applicant respectfully asserts claims 3-14, 17-18, and 20 are allowable based on allowable base claims. Additionally, each of claims 3-14, 17-18, and 20 may be allowable for further reasons, as described below.

In regard to claim 3, Applicant respectfully submits that claim 3 is patentable over the combination of Sano and Kommerling because the combination of cited references does not teach or suggest all of the limitations of the claim. Claim 3 recites a circuit adapted to "compare the detected magnetic state with a reference state and to detect tampering with the package in response to the detected magnetic state being different

than the reference state" (emphasis added). In contrast, Sano and Kommerling do not teach or suggest detecting that the package has been tampered with, as described above with reference to claim 1. Accordingly, Applicant respectfully asserts that claim 3 is patentable over Sano and Kommerling because Sano and Kommerling do not teach a circuit adapted to "compare the detected magnetic state with a reference state and to detect tampering with the package in response to the detected magnetic state being different than the reference state," as recited in claim 3.

In regard to claims 4 and 5, Applicant respectfully submits that claims 4 and 5 are patentable over the combination of Sano and Kommerling because the combination of cited references does not teach or suggest all of the limitations of the claims. Claim 4 recites a memory "adapted to <u>store data representative of an untampered magnetic state of the magnetically-responsive circuit nodes</u>, wherein the comparison circuit is adapted to compare the data stored in the memory with the detected magnetic state and to <u>detect tampering with the package in response to the data stored in the memory indicating a different magnetic state than the detected magnetic state</u>" (emphasis added). In contrast, Sano and Kommerling do not teach or suggest detecting that the package has been tampered with, as described above with reference to claim 1. Furthermore, the combination of Sano and Kommerling does not teach or suggest a memory adapted to store data representative of an untampered magnetic state. Sano merely instructs a mode changeover in response to a magnetic field (Sano, abstract), but does not teach or suggest that an initial state is stored. Kommerling merely teaches that an encryption key is provided from detected property output signals (Kommerling, col. 5, lines 3-5), but does not teach or suggest that an untampered magnetic state is stored. Accordingly, Applicant respectfully asserts that claim is patentable over Sano and Kommerling because Sano and Kommerling do not teach a memory adapted to "store data representative of an untampered magnetic state of the magnetically-responsive circuit nodes," as recited in claim 4. Claim 5 is dependent on claim 4 and is patentable over Sano and Kommerling at for the reasons stated above with reference to claim 4.

In regard to claim 6, Applicant respectfully submits that claim 6 is patentable over the combination of Sano and Kommerling because the combination of cited references does not teach or suggest all of the limitations of the claim. Claim 6 recites that the

device is adapted to "alter data stored in the integrated circuit in response to the comparison circuit detecting tampering with the package" (emphasis added). In contrast, Sano and Kommerling do not teach or suggest that an integrated circuit is adapted to alter data stored in the integrated circuit in response to detecting tampering. The Office Action asserts on page 9 that Sano does not teach that the integrated circuit device is adapted to alter data stored in the integrated circuit. Additionally, Kommerling also does not teach or suggest altering data stored in the integrated circuit in response to detecting tampering with the package. In fact, Kommerling does not teach detecting tampering with the package, as described above with reference to claim 1. Furthermore, Kommerling does not teach or suggest that data stored in the integrated circuit is altered in response to detecting tampering (emphasis added). Kommerling merely teaches that a key is formed from a plurality of property outputs (Kommerling, col. 5, lines 52-59). In Kommerling, the key is provided by a cryptographic unit at the time the CPU core requests data from the memory (Kommerling, col. 6, lines 4-16), but if no such request is given, the key will remain the same until the next request, independently of the state of the encapsulation. Therefore, the key as disclosed by Kommerling will not change in response to tampering of the encapsulation (emphasis added). Accordingly, Applicant respectfully asserts that claim 6 is patentable over Sano and Kommerling because Sano and Kommerling do not teach that the device is adapted to "alter data stored in the integrated circuit in response to the comparison circuit detecting tampering with the package," as recited in claim 6.

In regard to claim 7, Applicant respectfully submits that claim 7 is patentable over the combination of Sano and Kommerling because the combination of cited references does not teach or suggest all of the limitations of the claim. Claim 7 recites that the device is adapted to "set a tamper-detection flag in response to the comparison circuit detecting tampering" (emphasis added). In contrast, Sano and Kommerling do not teach or suggest detecting tampering, as described above with reference to claim 1. Accordingly, Applicant respectfully asserts that claim 7 is patentable over Sano and Kommerling because Sano and Kommerling do not teach that the device is adapted to "set a tamper-detection flag in response to the comparison circuit detecting tampering," as recited in claim 7.

CONCLUSION

Applicant respectfully requests reconsideration of the claims in view of the amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-4019** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-4019** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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